JP06020096FT0660

FIG. 1

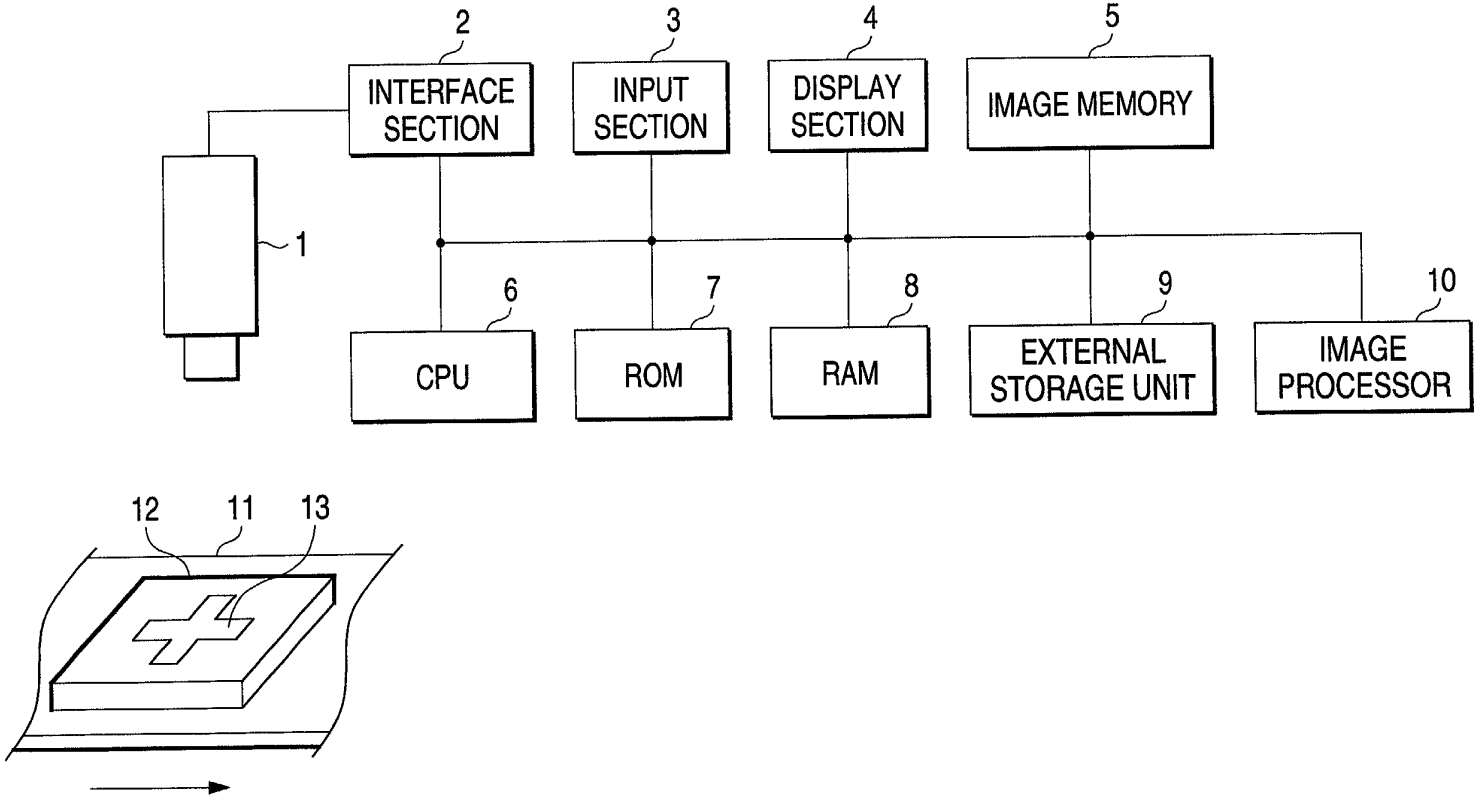

FIG. 2

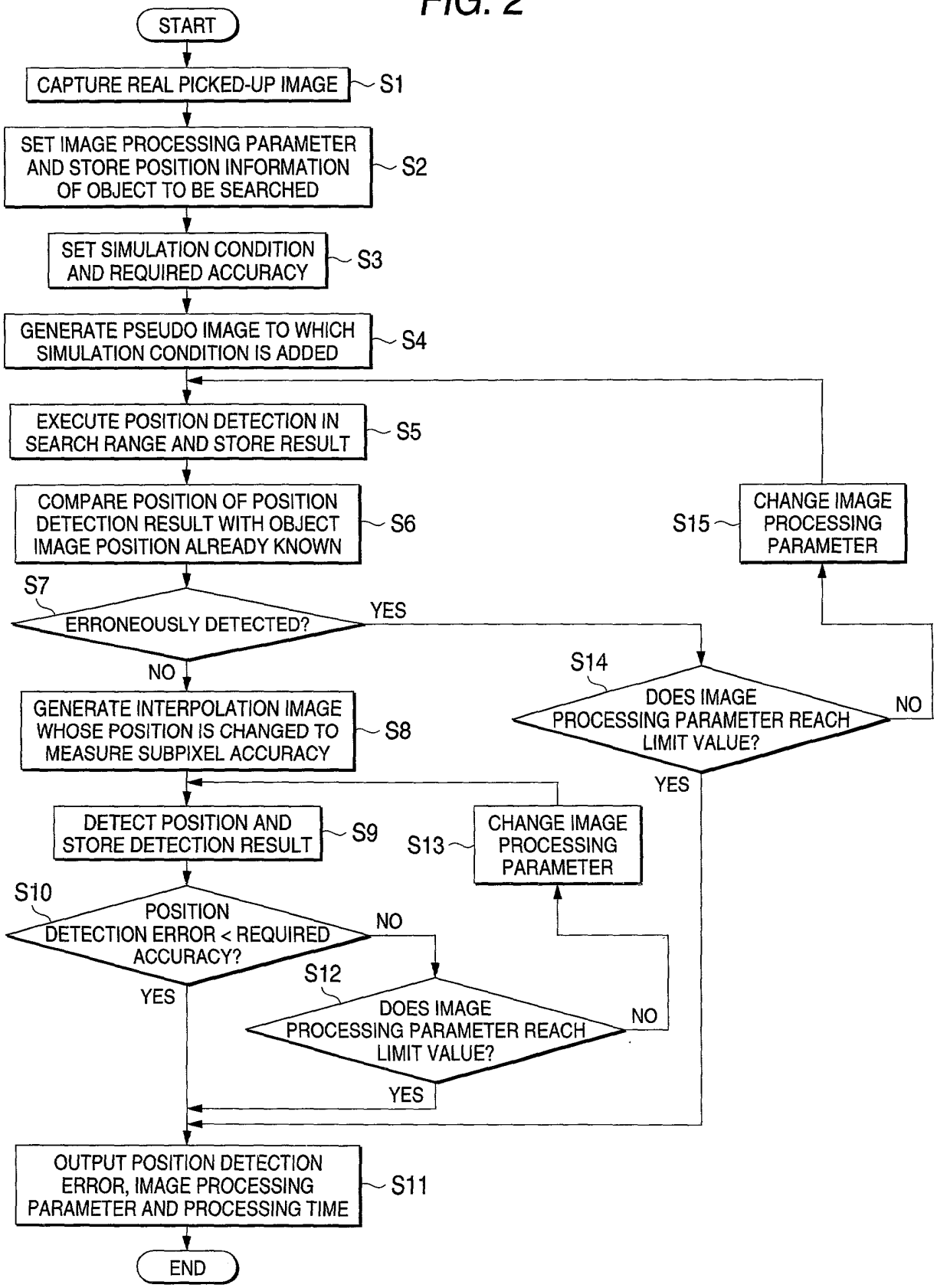

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FIG. 3

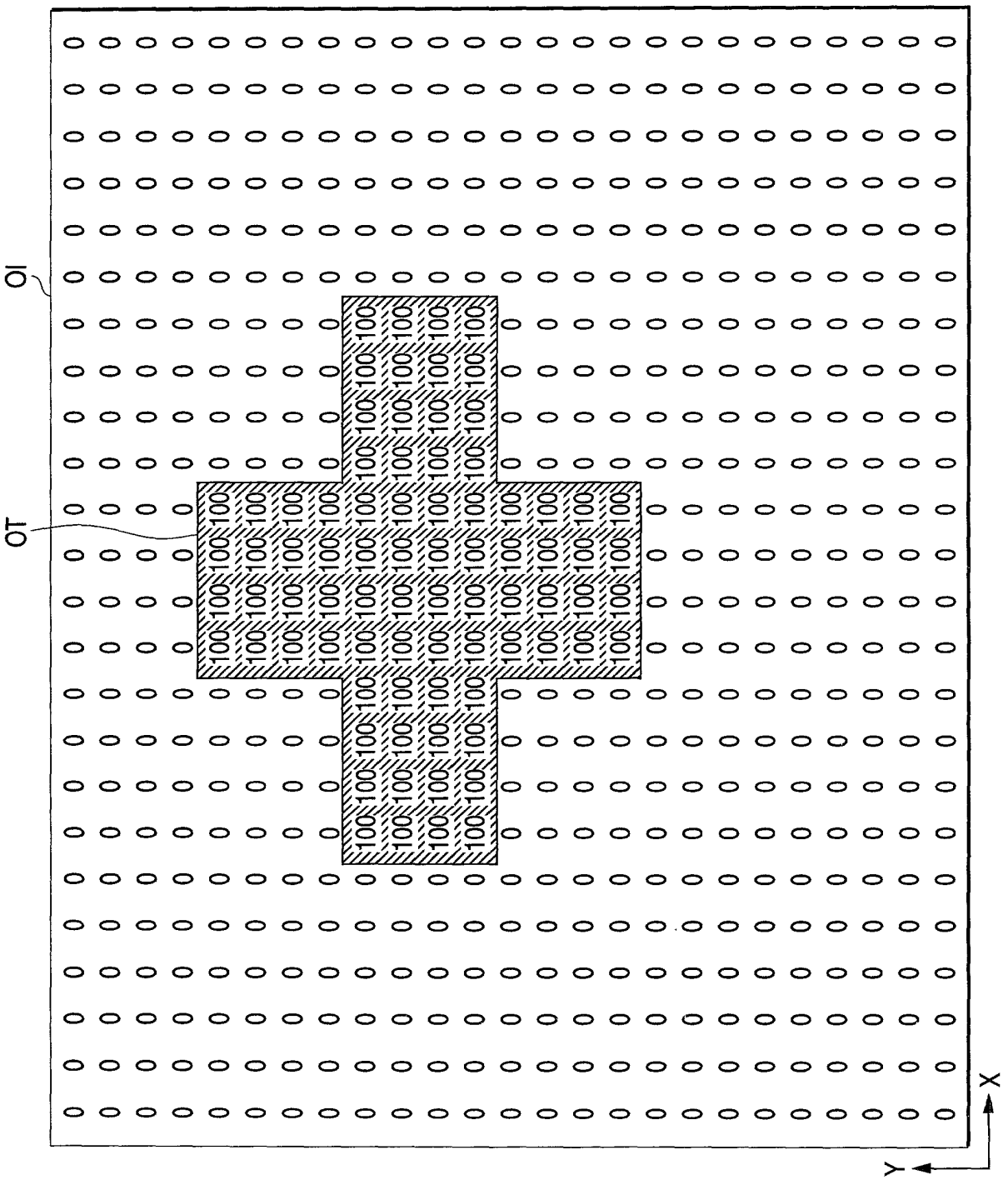


FIG. 4

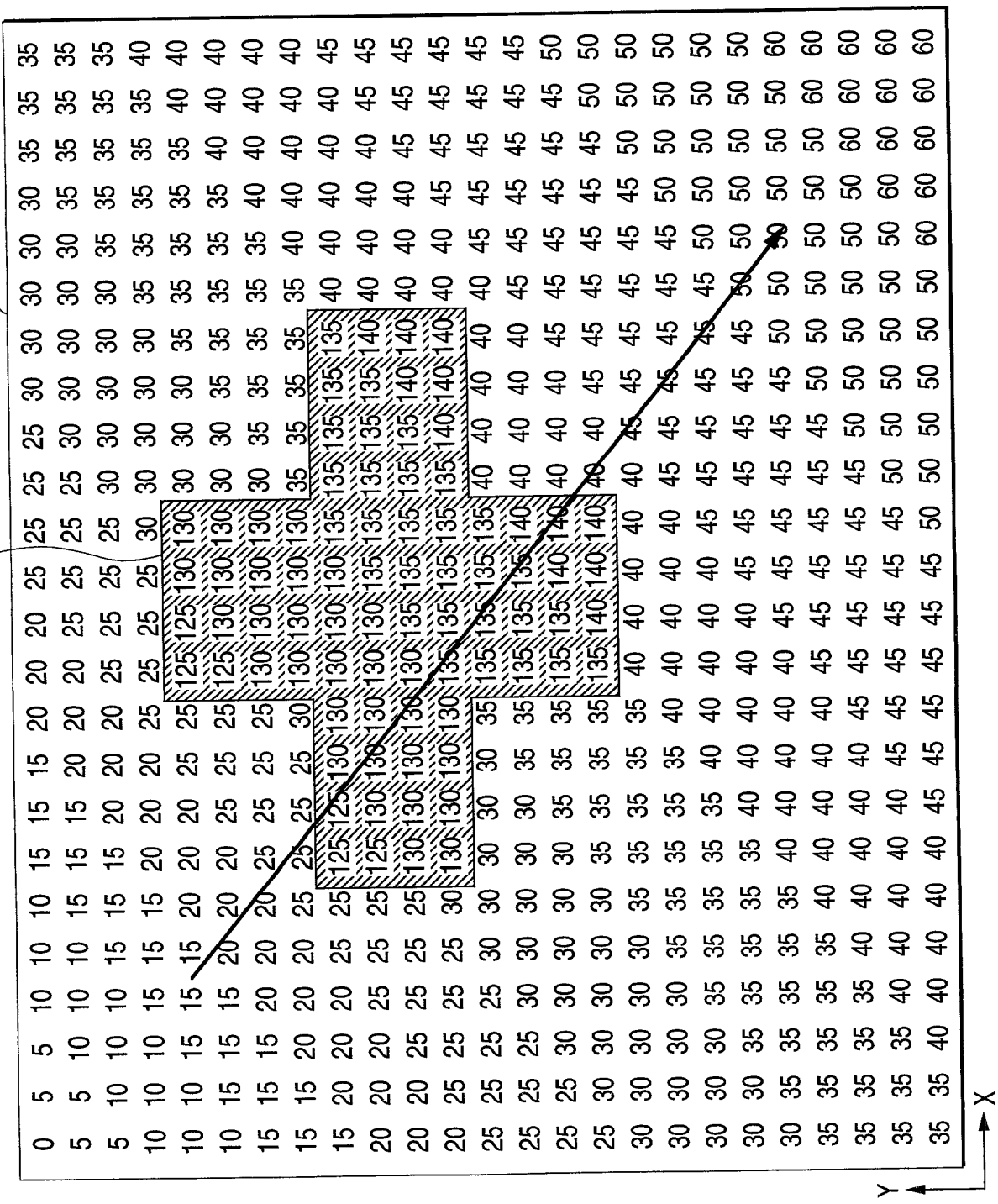


FIG. 5

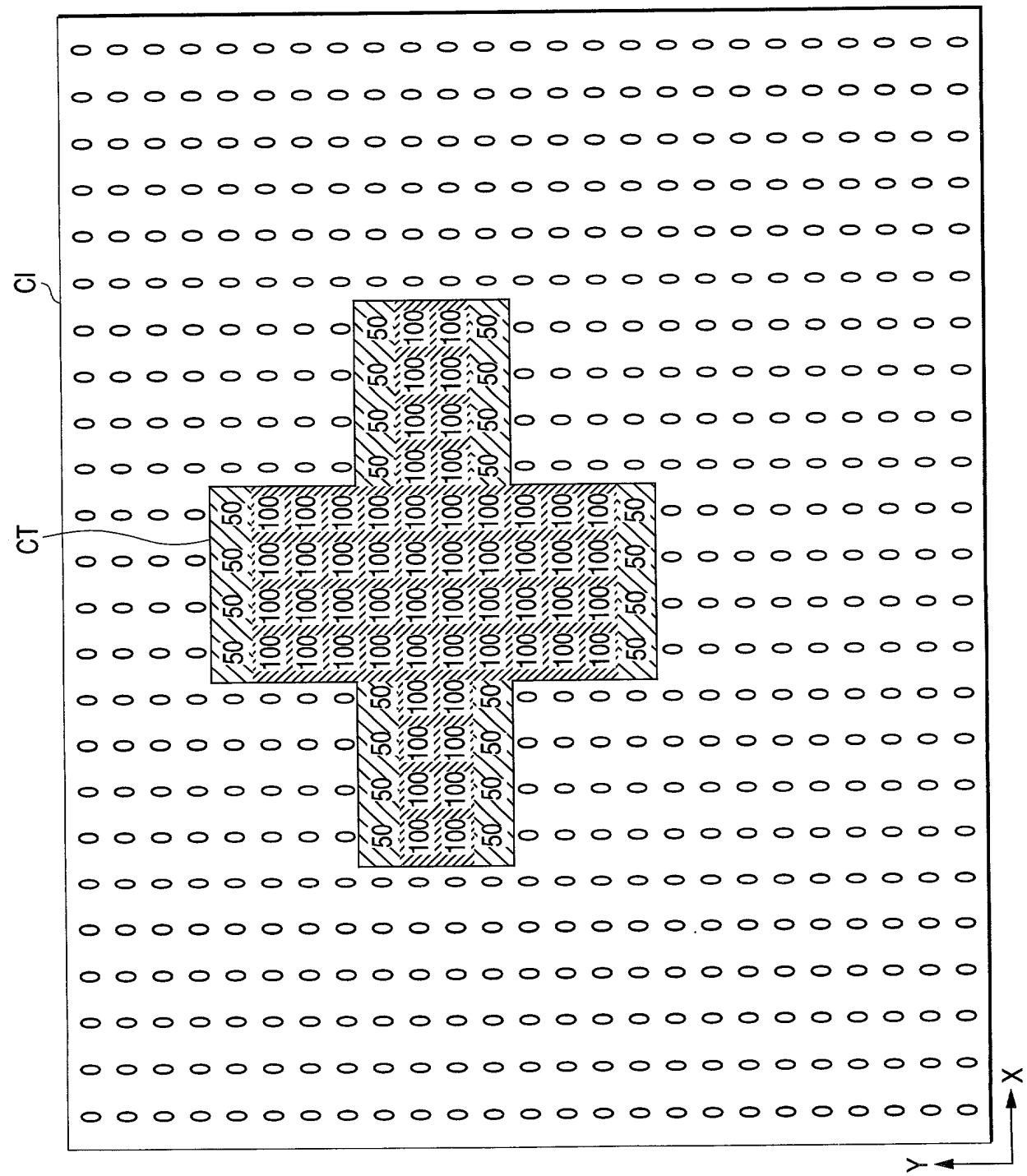
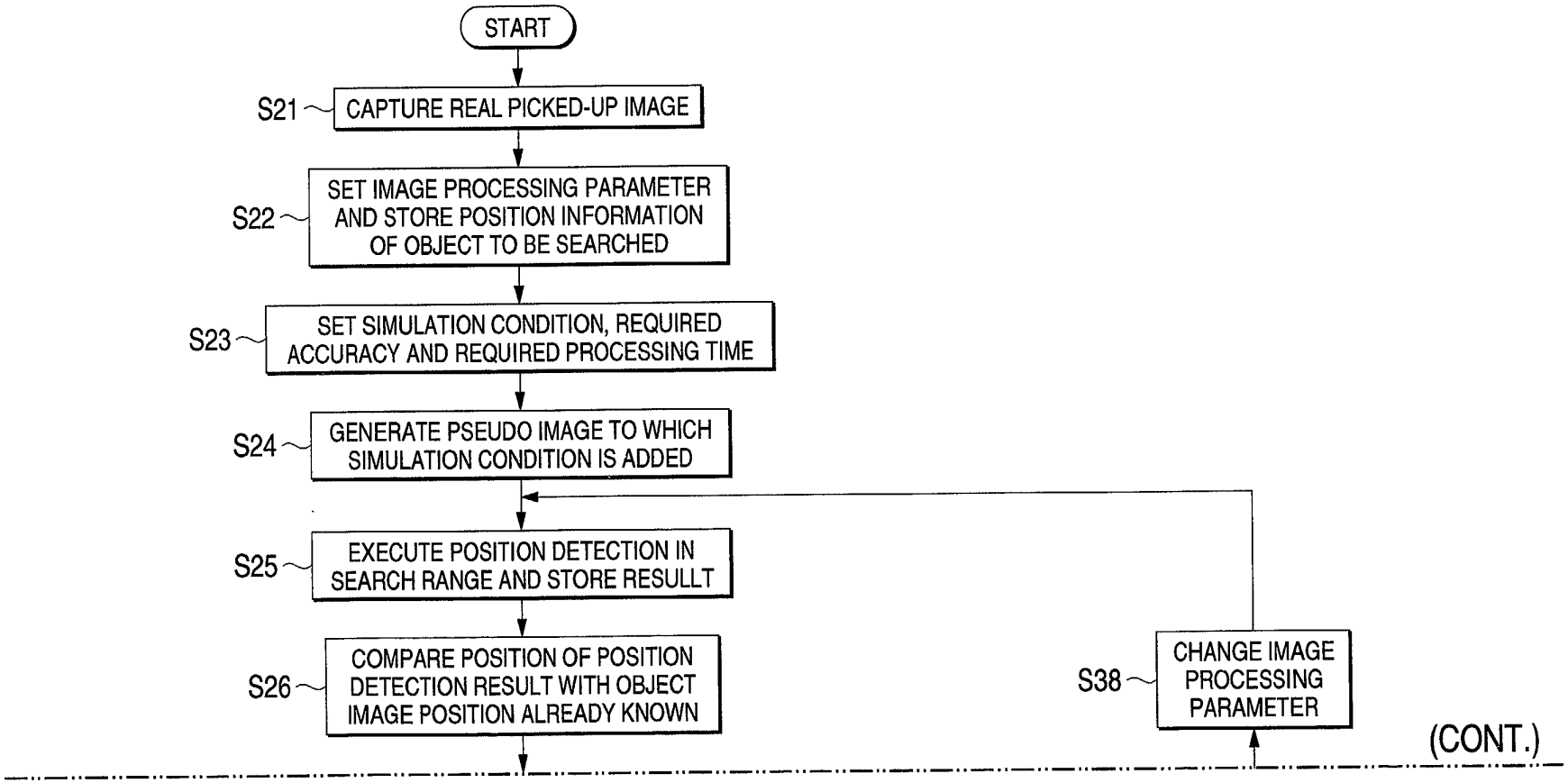


FIG. 6


START
S21
CAPTURE REAL PICKED-UP IMAGE
S22
SET IMAGE PROCESSING PARAMETER AND STORE POSITION INFORMATION OF OBJECT TO BE SEARCHED
S23
SET SIMULATION CONDITION, REQUIRED ACCURACY AND REQUIRED PROCESSING TIME
S24
GENERATE PSEUDO IMAGE TO WHICH SIMULATION CONDITION IS ADDED
S25
EXECUTE POSITION DETECTION IN SEARCH RANGE AND STORE RESULLT
S26
COMPARE POSITION OF POSITION DETECTION RESULT WITH OBJECT IMAGE POSITION ALREADY KNOWN
S38
CHANGE IMAGE PROCESSING PARAMETER
(CONT.)

(FIG. 6 CONTINUED)

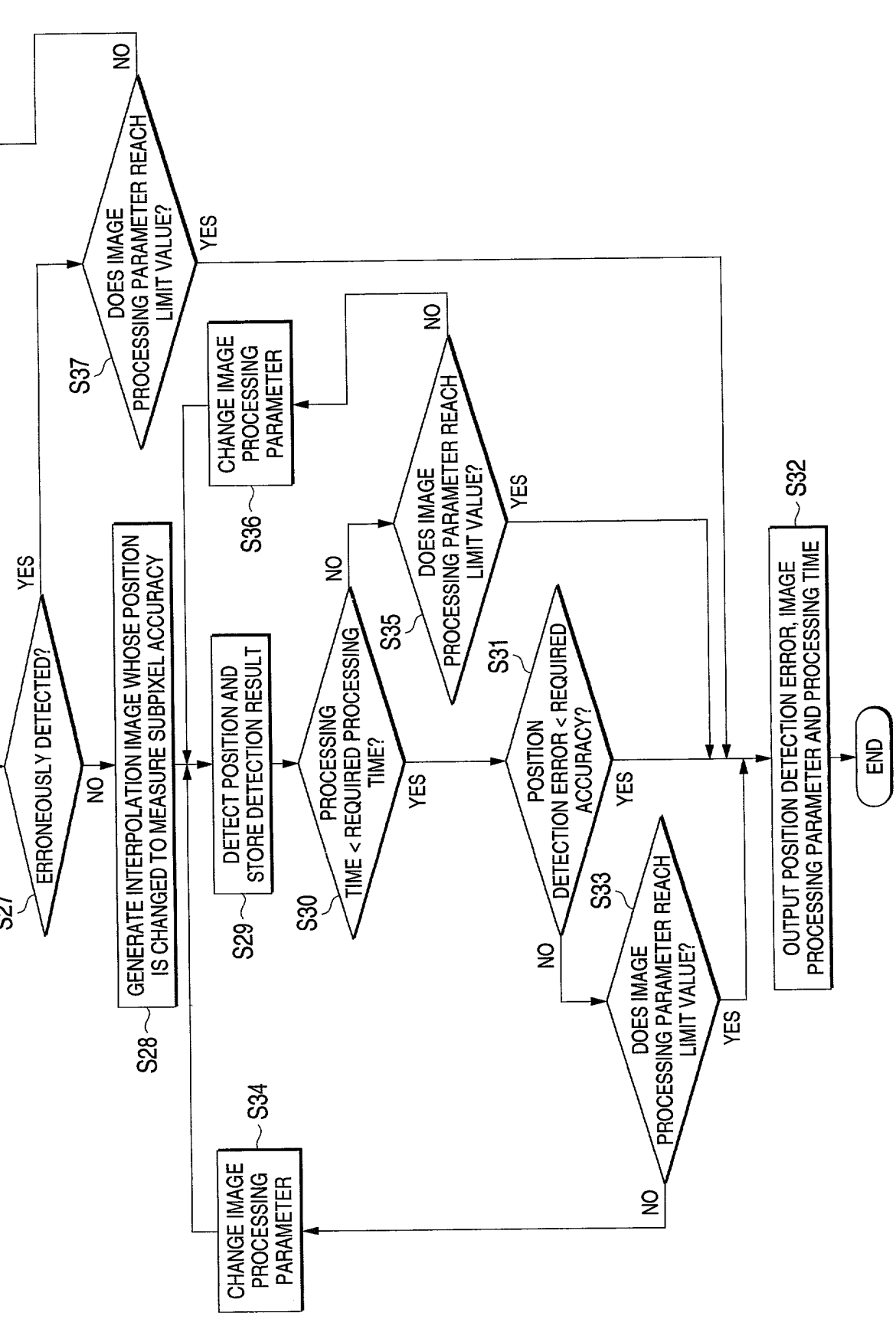


FIG. 7

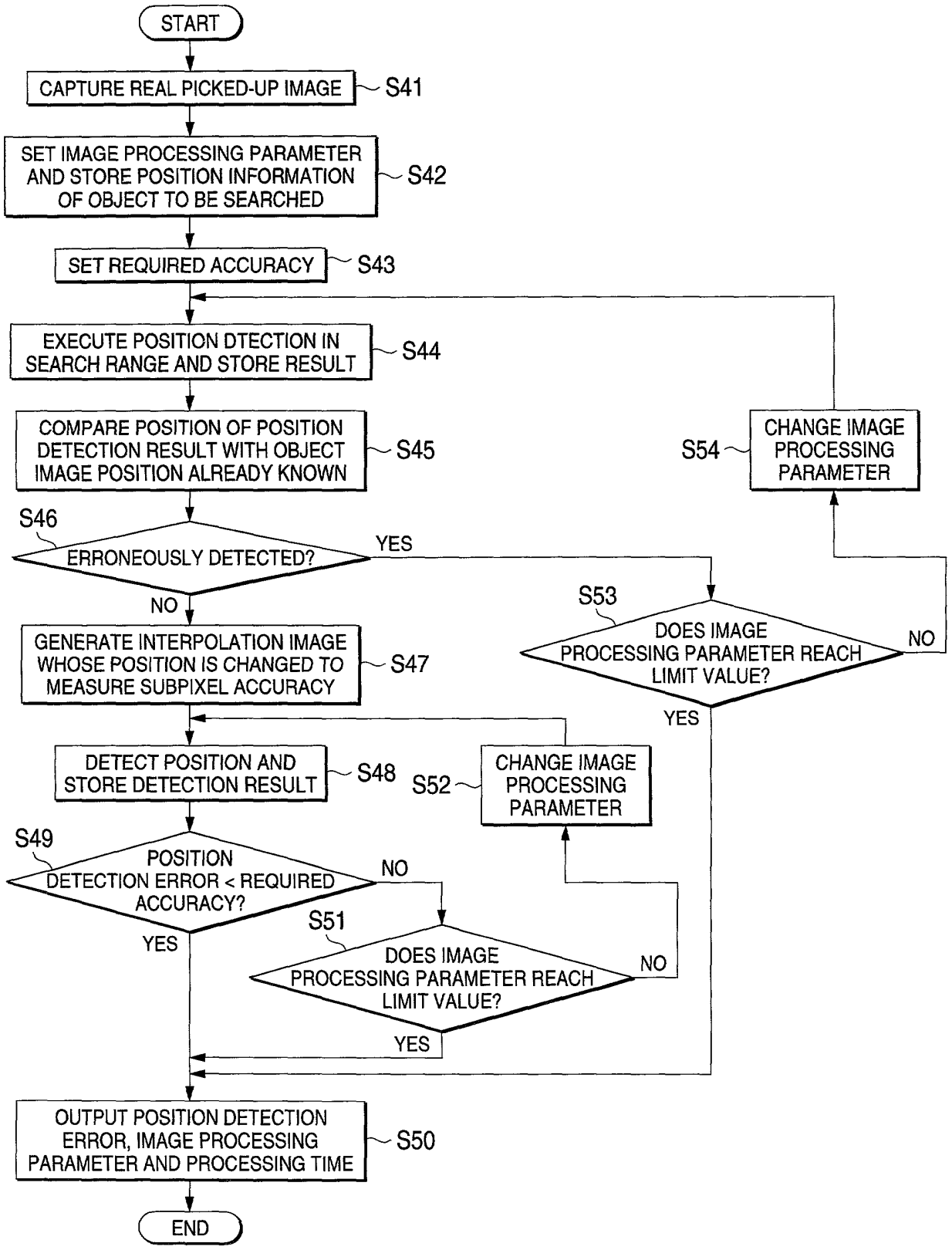
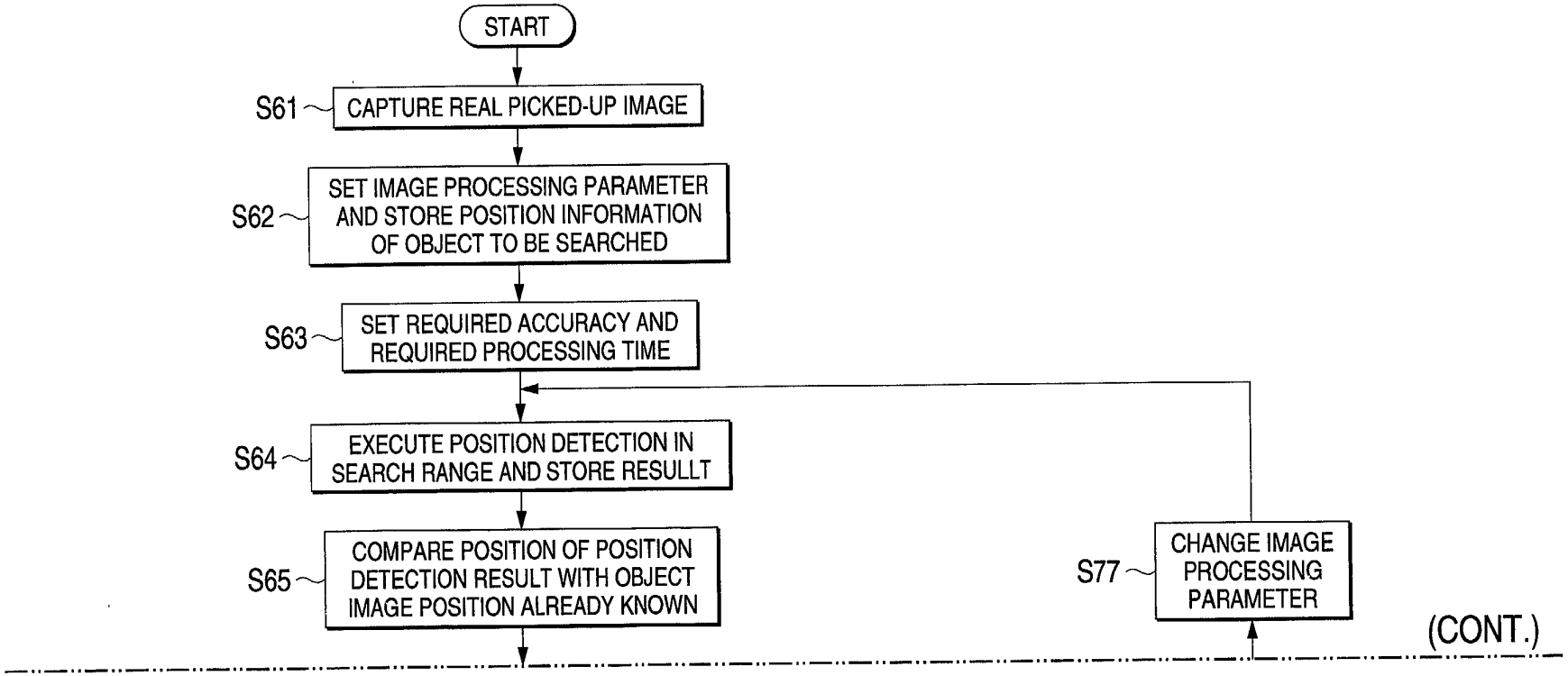
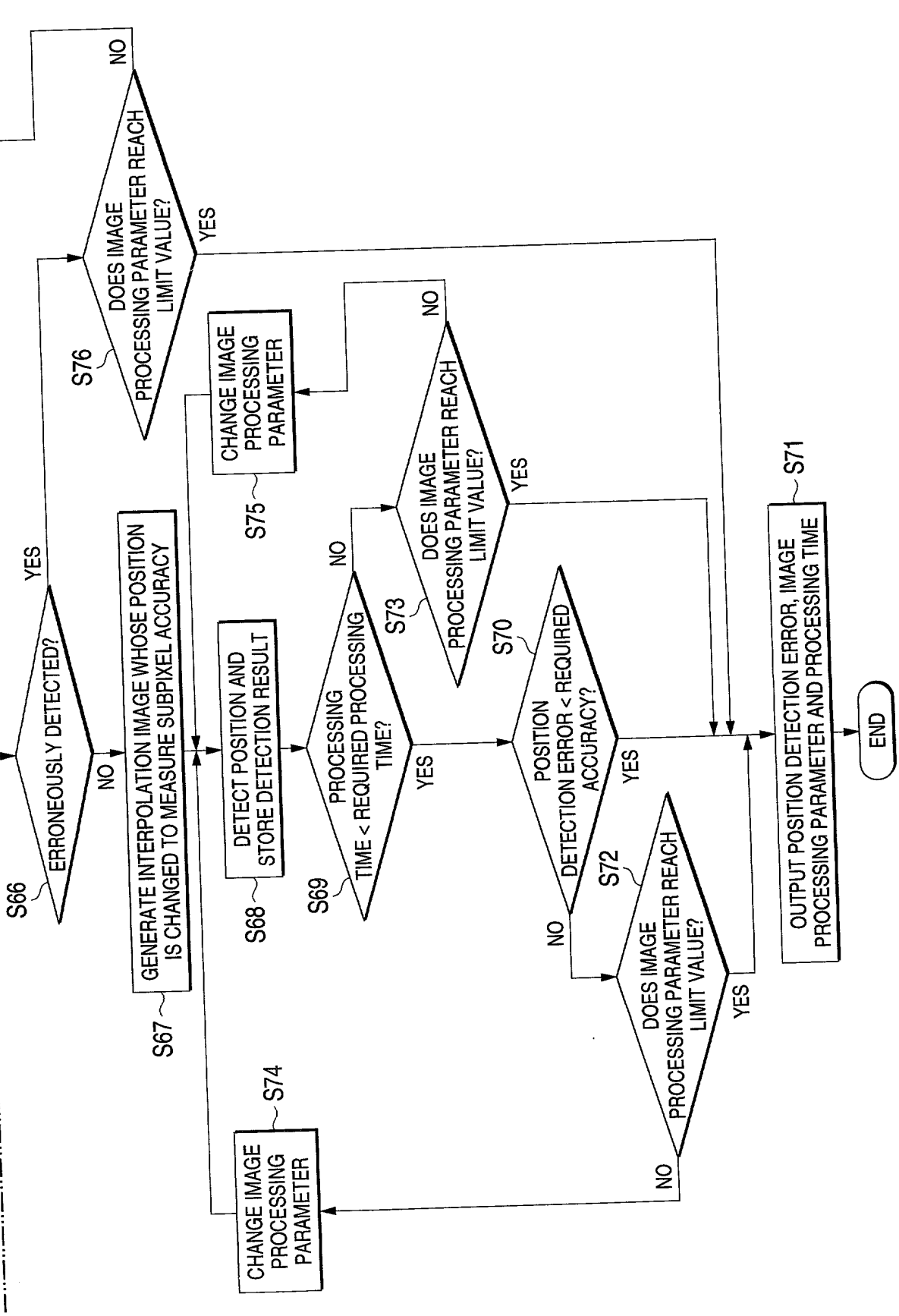

START
CAPTURE REAL PICKED-UP IMAGE
S41
SET IMAGE PROCESSING PARAMETER AND STORE POSITION INFORMATION OF OBJECT TO BE SEARCHED
S42
SET REQUIRED ACCURACY
S43
EXECUTE POSITION DTECTION IN SEARCH RANGE AND STORE RESULT
S44
COMPARE POSITION OF POSITION DETECTION RESULT WITH OBJECT IMAGE POSITION ALREADY KNOWN
S45
S46
ERRONEOUSLY DETECTED?
YES
NO
GENERATE INTERPOLATION IMAGE WHOSE POSITION IS CHANGED TO MEASURE SUBPIXEL ACCURACY
S47
S53
DOES IMAGE PROCESSING PARAMETER REACH LIMIT VALUE?
NO
YES
S54
CHANGE IMAGE PROCESSING PARAMETER
DETECT POSITION AND STORE DETECTION RESULT
S48
S52
CHANGE IMAGE PROCESSING PARAMETER
S49
POSITION DETECTION ERROR < REQUIRED ACCURACY?
NO
YES
S51
DOES IMAGE PROCESSING PARAMETER REACH LIMIT VALUE?
NO
YES
OUTPUT POSITION DETECTION ERROR, IMAGE PROCESSING PARAMETER AND PROCESSING TIME
S50
END

FIG. 8


START
S61
CAPTURE REAL PICKED-UP IMAGE
S62
SET IMAGE PROCESSING PARAMETER AND STORE POSITION INFORMATION OF OBJECT TO BE SEARCHED
S63
SET REQUIRED ACCURACY AND REQUIRED PROCESSING TIME
S64
EXECUTE POSITION DETECTION IN SEARCH RANGE AND STORE RESULLT
S65
COMPARE POSITION OF POSITION DETECTION RESULT WITH OBJECT IMAGE POSITION ALREADY KNOWN
S77
CHANGE IMAGE PROCESSING PARAMETER
(CONT.)

(FIG. 8 CONTINUED)